

## **DRAWINGS**

Attached please find formal replacement FIGS. 1-5 for the originally-submitted FIGS. 1-

5. The new formal replacement figures add no new matter.

## **REMARKS**

Claims 1-19 are pending in this application. Attached hereto is a complete listing of all claims in the application, with their current status listed parenthetically. By this Response, no claims have been amended, cancelled or withdrawn.

### **In the Drawings**

Included with this Response are formal FIGS. 1-5 on six replacement drawing sheets. Please replace the originally-submitted FIGS. 1-5. The new formal figures add no new matter.

### **Rejection Under 35 U.S.C. § 112, 1<sup>st</sup> paragraph**

In paragraphs 1 and 2 of the Office Action, the Examiner rejects claims 1, 9, 14 and 20 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner states:

"The specification [is] directed to using a[n] ultra wide band transport system as disclosed on page 12 of the co-pending [now issued] United States Patent Application Serial No. 09/393,121, filed September 10, 1999, [which] does not describe in a way as to reasonably convey the limitation of the communication comprising "a multiplicity of ultra wide band signals" and/or the combinational limitation of "the communication using Time Division Multiple Access frame comprising a multiplicity of ultra wide band signals" to one skilled in the relevant art. How does using an ultra wide band transport system support the communication using a TDMA comprising multiplicity of ultra wide band signals?"

In addition, in the Response to Arguments section, the Examiner asks the same question: "How does using an ultra wide band transport system support the communication using a TDMA comprising multiplicity of ultra wide band signals?"

As discussed below, Applicant respectfully traverses these rejections. Applicant notes that "[t]here is a strong presumption that an adequate written description of the claimed invention is present when the application is filed." M.P.E.P. 2163 IA.

As admitted by the Examiner, the ultra wide band aspect is disclosed on page 12 of the co-pending (now issued) United States Patent Application Serial No. 09/393,121, (the '121 application) filed September 10, 1999, which is incorporated by reference in the present application. Specifically, the '121 application reads as follows:

"The MAC protocol of the present invention may be utilized in various network configurations and topologies including, for example, guided or wired media as well as unguided or wireless media. The MAC protocol is particularly advantageous in wireless network configurations because of the error-correction and communication management features provided by the invention. Such an illustrative wireless network is a synchronous wireless network comprising a plurality of transceiver devices transmitting and receiving pulses using a baseband or "ultra wide band" transport. Under this network configuration the MAC protocol and method of the present invention provide communication management, flow control, and failure-recovery for the shared air transport medium." (page 12, 1<sup>st</sup> paragraph) [emphasis added]

In this part of the '121 specification, Applicant discloses different types of network configurations that may employ the MAC protocol. As discussed later in the '121 specification, TDMA frames may be employed by the MAC protocol (see FIG. 4). The present application, filed only four months after the '121 specification, discusses additional details of the MAC protocol and TDMA frames.

"While there is no *in haec verba* requirement, newly added claim limitations must be supported in the specification through express, implicit, or inherent disclosure." M.P.E.P. 2163 IB. In this case, ultra wide band is expressly supported in the originally-filed '121 specification that is incorporated by reference.

As mentioned above, the paragraph from the '121 specification discusses different types of networks, such as wire media networks, and wireless networks. One type of wireless network disclosed is one that employs ultra wide band signals.

"What is conventional or well known to one of ordinary skill in the art need not be disclosed in detail." M.P.E.P. 2163 IIA3(a). Ultra wide band (UWB) technology is a technology that is well known in the art of communications. Attached in **Exhibit A** is "A Brief History of UWB Communications," which discloses that by 1989 (11 years before Applicant's priority date), Sperry Corporation had been awarded over 50 patents, and UWB had been in development for nearly 30 years (page 2, 1<sup>st</sup> paragraph). Thus, as of Applicant's priority date, UWB had been in development for at least 40 years.

The electrical arts are considered predictable, and one skilled in the UWB art could develop an ultra wide band network employing TDMA frames using Applicant's disclosure. The TDMA frame, described in detail in Applicant's originally-filed specification, may in practice, be embodied in computer logic. A receiver receives the ultra wide band signals, and decodes the TDMA frame using the computer logic. The ultra wide band signals encompassing the TDMA frame are generated by an ultra wide band transmitter, which have been in existence for 40 years. For example, ultra wide band transmitters are disclosed in several references cited by the Examiner, as well as references listed in Applicant's Information Disclosure Statement.

In view of the above discussion, Applicant submits that claims 1, 9, 14 and 20 are supported by the '121 specification, and the present specification, and thus respectfully requests the Examiner to reconsider and withdraw this rejection.

Regarding the rejections under 35 U.S.C. § 103(a), the Examiner is directed to Applicant's September 10, 2004, and February 25, 2004 Responses.

**Conclusion**

Applicant believes that this Response has addressed all items in the Office Action and now places the application in condition for allowance. Accordingly, favorable reconsideration and allowance of claims 1-19 at an early date is solicited. Should any issues remain unresolved, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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Date



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